

REMARKS:

This paper is herewith filed in response to the Examiner's Office Action mailed on June 27, 2007 for the above-captioned U.S. Patent Application. This office action is a rejection of claims 1-36 of the application.

More specifically, the Examiner has rejected claim 21 under 35 USC 101 because the claimed invention is directed to non-statutory subject matter; rejected claims 1-16, 19-20, and 22-36 under 35 USC 102(e) as anticipated by Larsson (US6,751,200); and rejected claims 17 and 18 under 35 USC 103(a) as being unpatentable over Larsson in view of Isumi (US5,815,816). The Applicant respectfully traverses the rejection.

The claims 1, 20, 22, 23, 29, and 31 have been amended for clarification. Support for these amendments can at least be found on page 7, lines 20-22. Claim 34 has been amended to correct a typographical error. Claims 6 and 35 have been cancelled. No new matter is added.

Regarding the rejection of claim 21 under 35 USC 101 the Applicant has amended claim 21 to overcome the rejection. Support can at least be found on page 10, lines 12-15. The rejection is seen as overcome and the rejection should be removed.

The Applicant notes the invention relates to a method of sending a data packet from a first device located in a first piconet to a destination device located in a second piconet, both devices being part of a scatternet. The data packet is sent **over a newly created link that temporarily short-circuits the existing network topology without permanently changing it**. The first device determines whether or not a direct radio communication link can be made to the destination device. This may be achieved by the first device maintaining a list of devices that are within its radio communication range and determining whether the destination device appears within that list. The list may be maintained using a Bluetooth enquiry procedure. If such a link cannot be

established the first device sends a routing request within the scatternet so that the data can be transmitted to the destination device through the existing piconets.

In the present office action the examiner has rejected claim 1 as being anticipated by Larsson. The Applicant notes that claim 1 has been amended to recite in part features of claim 6 and claim 6 has been cancelled. The Applicant submits that this amendment is made without prejudice or disclaimer.

In addition, the Applicant contends that the rejection of claim 6 is clearly in error. The Applicant respectfully traverses the rejection of claim 6 as applied in claim 1 below.

Claim 1 as amended recites:

“A method of delivering a packet in a scatternet having a network topology comprising: **creating a direct radio communications link** between a first device in a first piconet of a scatternet and a destination device in a second piconet of the scatternet, **wherein the direct radio communications link creates a short-circuit in the network topology**; and, transmitting the packet via the direct radio communications link.”

Larsson discloses:

“**The concept of forming new piconets, while doing route discovery**, will in principle result in piconets in such a way that the source node can reach all other nodes in the network. **The source node will thus get a route to the destination if the destination can be reached at all,**” (emphasis added), (col. 7, line 21 to 25); and

“The actual piconet establishment procedure means that the nodes (source node and nodes forwarding the request) must enter an INQUIRY mode to scan the environment (other nodes have to be in INQUIRY scan mode), i.e., neighbor discovery. The node will get a number of responses from nodes in the neighborhood. **The node can thereafter make some sort of smart decision as to which nodes it should connect to, and how the new piconets should be formed.** The nodes **have the option to create entirely new piconets or to integrate into already existing piconets.** This is dependent on how much

information is available to the node. This could include information such as piconet member addresses, which piconet nodes are capable of forwarding packets, whether nodes are slaves, masters or both, and whether nodes are a member of more than one piconet,” and

“When the smart decision is made, **the node will actually make the connection by entering PAGE mode and sent a PAGE packet to the node that it wants to connect to,**” (emphasis added), (col. 7, line 26 to 42)

In Larsson when data is to be transmitted from the source node to the destination node, the source node initiates route discovery. This involves broadcasting a route request message to nodes within its piconet to attempt to reach the destination node through the existing scatternet. However, if this is unsuccessful or if a quicker route is required, the source node **initiates a new route discovery process that attempts to establish a completely new scatternet**. This involves sending an enquiry to neighboring nodes and using the results of this enquiry **to form a new scatternet** with the aim of finding a quicker route to the destination node (col. 7, lines 26-34).

The Applicant contends that the operation of Larsson clearly does not disclose claim 1 which relates to creating a direct radio communications link which creates a “**short-circuit in the network topology**” upon which data can then be transmitted. The Applicant respectfully directs the Examiner to at least page 7, lines 20-25 of the written description for support and further description.

The Applicant contends that forming “new piconets” in Larsson can not be seen to disclose “**creating a direct radio communications link** between a first device in a first piconet of a scatternet and a destination device in a second piconet of the scatternet, **wherein the direct radio communications link creates a short-circuit in the network topology,**” as in claim 1. For at least these reasons the Applicant respectfully submits that Larsson can not be seen to disclose claim 1. Thus, the rejection of claim 1 should be removed.

In addition, for at least the reasons stated the Applicant contends that Larsson is not seen to anticipate at least where claim 20 recites “creating a direct low power radio frequency

communications link between the first device and the destination device that creates a short-circuit in the network topology.”

Further, for at least the reasons stated the Applicant contends that Larsson is not seen to anticipate at least where claim 22 recites “means for creating a new direct radio communications link to the destination device **that creates a short-circuit in the network topology while maintaining an existing direct radio communications link of the scatternet** within the first piconet.”

Further, for at least the reasons stated the Applicant contends that Larsson is not seen to anticipate at least where claim 23 recites “determining whether the creation of a direct radio **communications link between the first device and the destination device that short-circuits the network topology is possible.**”

In addition, for at least the reasons stated the Applicant contends that Larsson is not seen to anticipate at least where claim 29 recites “determining, at the source device, **whether the creation of a direct radio communications link between the source device and the destination device that short-circuits the network topology is possible.**”

Further, regarding the rejection of claim 31 the Applicant notes that claim 31 has been amended to recite in part the features of claim 35 and claim 35 has been cancelled. The Applicant submits that this amendment is made without prejudice or disclaimer.

In addition, the Applicant contends that the rejection of claim 35 is clearly in error. The Applicant respectfully traverses the rejection of claim 35 as applied in claim 31 below.

For at least the reasons stated the Applicant contends that Larsson is not seen to anticipate at least where claim 31 recites “**creating a third piconet between the first piconet and the second piconet that short circuits the network topology.**”

In regards to the rejection of claims 17 and 18 under 35 USC 103(a) the Examiner states:

“Larsson et al. discloses all of the subject matter as discussed above but fails to disclose that the direct radio communications link is temporary; and the direct radio communications link is released after a predetermined period of inactivity.” and

“Isumi teaches that temporarily establishing a connection and releasing the connection after a **predetermined period of inactivity** in the connection (column 13, line 64 — column 14, line 3).”(emphasis added), and

“It would have been desirable to temporarily establishing a connection and releasing the connection after a predetermined period of inactivity in the connection because it would make system resource utilization more efficient. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method as taught by Isumi in the system of Larsson et al.”

As cited Isumi actually discloses:

“Alternatively, when receiving the setup message from the radio control station 4, the communication channel management unit 20 may temporarily acquire a circuit communication channel for a **predetermined period of time** and moreover release this circuit communication channel **if no radio link setup request message is sent from the radio subordinate unit within this predetermined period of time,**” (emphasis added), (col. 13 line 64 to col. 14, line 3).

Firstly, the Applicant submits that a “**predetermined period of time**” as in Isumi clearly does not suggest “a **predetermined period of inactivity,**” as in claim 18. Further, the Applicant respectfully notes that in all of Isumi there is no suggestion that communication channel management unit 20 would operate with a “piconet establishment procedure” as disclosed in Larsson. For at least these reasons the Applicant contends that imputing an operation of a “radio link setup request message” as in Isumi to the “piconet establishment procedure” in Larsson is clearly not supported in the references cited.

The Applicant contends that for at least these reasons there is no suggestion or motivation to combine Larsson and Isumi and the rejections of claims 17 and 18 should be removed.

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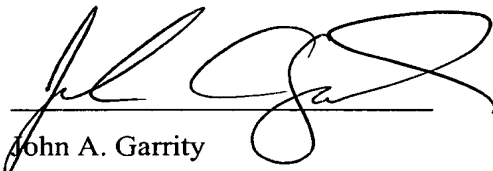
Further, although the Applicant does not agree that a combination of Larsson and Isumi is feasible or possible, for at least the reasons already stated the Applicant contends that such a combination would still not suggest the claims.

Further, for at least the reasons that claims 2-5, and 7-19; 21; 24-28; 30; and 32-34 and 36 depend from claims 1, 20, 23, 29, and 31, respectively, the references cited are not seen to disclose or suggest these claims.

Based on the above explanations and arguments, it is clear that the references cited cannot be seen to disclose or suggest claims 1-5, 7-34, and 36. The Examiner is respectfully requested to reconsider and remove the rejections of claims 1-5, 7-34, and 36 and to allow all of the pending claims 1-5, 7-34, and 36 as now presented for examination.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record. Should any unresolved issue remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

Respectfully submitted:



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450.

Sept. 26, 2007

Date

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